

A METHOD TO CREATE ACTIVE FINITE ELEMENTSABSTRACT

5 A method for studying and/or simulating mechanical properties of active structures applies a new type of element, namely active finite element through incorporation of a user-defined sub-programme into a conventional finite element code. The motion and stress-

10 strain distribution of the active structure can be predicted using the finite element model that is constructed with the active finite elements. The active finite element is driven by a motor element that is activated by a mathematical function.